



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## MASSORETIC STUDIES.

## I.

*The Number of Letters in the Bible.*

ACCORDING to the well-known Talmudical passage, T. B. Kiddushin, 30 a, the name Sofer derives its origin from the fact that the scholars of Scripture *counted* all the letters of the Bible<sup>1</sup>. The same explanation of the term Sofer occurs also in Chagiga, 15 b<sup>2</sup>. It follows, unquestionably, from these passages that the counting of the letters took place at least in Tanaitic times; for the passage in Kiddushin seems to be extracted from a Boraitha. But even if it be assumed that the author of the anonymously mentioned etymology was an Amora, it may, nevertheless, be deduced with absolute certainty, that already at that time the counting of the letters passed for a very ancient tradition, for otherwise no Amora would have hit upon such a derivation.

It may be inferred, from this circumstance alone, that the determination of the number of letters in the Pentateuch and Psalms, which is the subject dealt with in the passage referred to, must be regarded as a pre-Tanaitic, or, at least an early Tanaitic, production. If the letters began to be counted for the first time at the flowering time of tradition, after the destruction of the Temple, it would never have occurred to an Amora living (even in Babylon) 150 years later—the passage in Kiddushin must be ascribed, at latest,

<sup>1</sup> לפיכך נקראו ראשונים סופרים שהיו סופרים כל האותיות שבתורה שהיו אומרים וא"ר דגחן חציין של אוריות של ס"ת דרש דרש חציין של חיבות וההגלה של פסוקים יכרסמנה חזיר מיצר ע"ן דיער חציים של תהלים והוא רחום יכפר עון חציו דפסוקים.

<sup>2</sup> איה סופר (Isa. xxxiii. 18) שהיו כושרים כל אותיות שבתורה (Cf. also B. Sanhedrin, 106 b.) The Jerusalem Talmud gives a different etymology, אמר ר' אבהו נתיב משפחות סופרים יושבי : (ed. Krotoschin, 48 c) : יעבץ (1 Chron. ii. 55) מה ח"ל כושרים אלא שעשו את התורה ספורות ספורות חמשה לא יתרומו ה' דברים חייבין בחלה וכו'. The counting is, therefore, not referred to the letters, but to the traditional ordinances.

to about the year 300—to assign this operation to the Sofrim<sup>1</sup>. Such an ante-dating is only intelligible on the assumption that the real period of origin lies so far back in the past that the memory of it is completely obliterated—a condition which supposes an interval of at least two centuries.

There is another consideration which leads us to the same conclusion as to the antiquity of this counting of the letters. In the synagogue scrolls, the middle letter of the Pentateuch (Lev. xi. 42) is indicated by a Vav maiusculum. If the letter-counting, and consequently the indication of the middle of the Pentateuch, was not yet known in the second century of our present era, or only then became a subject of notice, then that fact would not have been made outwardly perceptible in the text of the Bible, not even in the shape of a littera maiuscula, for at that time the holy text was already fixed and *consciously* no further change in it was taken in hand.

To which Biblical books this counting in the earliest period extended, cannot, with the data which have come down to us, be determined. As, in the passage in question, only the Pentateuch and the Psalter are mentioned, and as, further, in these two books alone the middle letter is indicated by large letters, we shall certainly hit the truth if we assume that the process of enumerating the letters was applied, in the first instance, to the Pentateuch as the law-book, and then to the Psalter as the prayer or hymn-book. The Massoretes, at all events in post-Talmudical times, unquestionably counted the letters of the other Biblical books also, as they did also the single letters of the alphabet, the numbers of whose occurrences in the *whole Bible* are given in the well-known poem ascribed to S'adyah. But, strange to say, on this point no specific statement has come down to us; I have nowhere found one.

Another, and indeed more difficult question is, how many letters were counted in the Torah and how many in the other books? The results which have been handed down to us differ considerably from each other. The Pentateuch alone, according to Elias Levita (*Masoreth Ha-masoreth*, III, Preface, ed. Ginsburg, p. 136), has 600,045; according to Joseph del Medigo (*Nobloth Chochma*, at the end), 600,000 in round numbers; according to Ben Asher (*Dikduke Ha-teamim*, p. 55), 400,945; according to Manuel du lecteur (ed. Derenbourg, p. 150), 400,900; according to an old Bible codex of Dr. Curtiss, 305,607

<sup>1</sup> Cf. Sabbath, 49 b, where it is stated: מי לא אמר רבה בר בר חנה משום רבי: which Rashi connects with our passage. Kiddushin, 30 a, is in all probability a Boraitha; but we will make our demonstration independent of this hypothesis.

(in *Baer-Strack Dikd. Ha-team*, p. 55, note 1); according to Norzi (*Minchath Shai*, ed. Mantua), in the Massoretic concluding note to the Torah, 304,805; according to Ch. D. Ginsburg's edition of the Massora, 290,136. I have arrived at this last figure by adding together the different estimates showing the number of times each letter of the alphabet occurs in the Torah—which estimates are to be found at the beginning of each letter in the Massoretic Dictionary, *The Massorah*. Ginsburg has, unfortunately, omitted to mention the sources of his Massoretic data, and we therefore do not know whence these important figures have been taken.

If we disregard the smaller differences and only consider round numbers, we get three different estimates: (1) 600,000; (2) 400,000; (3) 300,000. These variations cannot possibly have resulted from actual enumerations; in view of the exactness and extreme accuracy of the Massoretes such gross blunders are entirely out of the question. How, then, is this confusion in the statement of the figures to be explained?

In order to gain a solid standpoint from which these difficulties may be considered, there is no better and simpler means than a re-count. But as in our case the matter to be dealt with is not so much the determination of the exact number of letters, as the accounting for an error of at least 100,000 letters, this re-count can best be effected by working out some comparative estimates of the number of letters contained in various editions of the Pentateuch. For this purpose I select from the editions of the Bible which are accessible to me, three in particular, which contain the text of the Torah without any addition whatsoever; and of these, the stereotype edition of the Bible Society commends itself to the first place.

In my pocket edition (Berlin, 1886) the Pentateuch occupies 150 pages (+ 7 lines); each page has two columns, making altogether 300; each *full* column has 38 lines. A full column which occurs on p. 120a has 1,072 letters; on the other hand, a column on p. 2a, which contains 37 lines, and is printed less closely, has only 997 letters. Page 2, containing 74 incomplete lines has 1,997, the more closely printed page 120, with  $74\frac{1}{2}$  lines, numbers 2,087 letters; thus, the two together have 148 lines and 4,084 letters. Hence, a column of 37 lines has, on an average, 1,020 letters. In the 300 columns of the Pentateuch there would be, if fully printed, 11,400 lines ( $300 \times 38$ ). But at the beginning and end of each single book, as well as at the chapters, and at the Sedarim and Parashim, a larger or smaller space is always left blank. According to my calculation at least 644 lines are thus missed: viz. 129 in Genesis, 116 in Exodus, 137 in Leviticus, 173 in Numbers, and 89 in Deuteronomy, and the

result is therefore 11,400—644 or **10,756** lines. If we add to this 7 lines, which are on p. 151 of this edition of the Bible, and divide the number thus obtained, viz. 10,763, by 37, we get just 291 columns. As one such column numbers, on an average, 1,020 letters, we obtain, as the total number of letters in the Torah,  $1,020 \times 291$  or **296,820**.

Substantially the same result is yielded by a calculation based on ed. Amsterdam, 1734, which bears the title חומשה חומשי תורה, and which presents the Torah to us without any addition. The whole Pentateuch embraces  $266\frac{1}{2}$  pages, each full page has 32 lines. About 217 lines =  $7\frac{1}{2}$  pages, are incidentally missed; there thus remain 259 pages. Page 20b, where scarcely a single blank place has been left, contains 1,179 letters; 56b 1,148; 92a 1,193. On the average, therefore, there are  $\frac{3,520}{3} = 1,173$  letters to a page, and the total

number of letters would therefore be  $1,173 \times 259 = 303,807$ . If we make a deduction on account of letters missed at the closed Parashim, which are indicated by a  $\blacksquare$ , and at the poetical passages, which we have not taken into consideration, we shall arrive, on this calculation also, at a total sum of about 300,000 letters.

A third test is afforded by the Biblia Hebraica sine punctis, &c., Amstelaedami, 1701. The Pentateuch occupies  $148\frac{1}{2}$  pages; each page has two columns, and each *full* column 51 lines. If there were no blank spaces, the Pentateuch would thus contain 15,147 ( $297 \times 51$ ) lines; but, according to my calculation, 610 of these must be deducted; there remain, therefore, 14,537 lines, which, divided by 50, gives 290·7 columns. The two columns on 9b (= 100 lines) have 2,250 letters, those on 10a (likewise with 100 lines) have 2,152; a column would, therefore, on an average contain 1,050 letters. Total,  $290\cdot7 \times 1,050 = 305,235$ . If the omissions of letters, as indicated above, are deducted, there remains a round sum of about 300,000.

That the type is uniform, and that, consequently, every page contains very nearly the same number of letters, may be deduced from the fact that the traditional centre of the letters of the Pentateuch occurs almost exactly on the page where it is expected. ג'חון, Lev. xi. 42, occurs on page 76 (=  $150 \div 2$ ) in the edition of the Bible Society; in the Amsterdam edition of 1734, which contains  $133\frac{1}{2}$  double pages, it appears on page 68b; and in the Amsterdam edition of 1701, which has  $74\frac{1}{2}$  double pages, it is found on page 39a. That in all three editions the recognized centre of the letters appears one or two pages later than the exact half of the number of pages would presuppose, is explained by the circumstance that comparatively larger blank spaces occur in the first half of the pages than in the latter half.

Reckon how one will, by pages, by columns, by lines, if several pages be reckoned out and the average number of letters per page and line be ascertained, the minimum total never sinks below 290,000 and the maximum total never rises above 310,000. We may even go beyond the wildest dreams of the boldest Bible critics, and, at the expense of the correctness of our text, generously place at their disposal several thousands of letters, which may, at pleasure, be added to or subtracted from the total number, without materially altering thereby the final result. In no case will a sum of 400,000 be arrived at, still less of 600,000.

According to our investigation, then, it admits of no doubt that the approximately correct statement can only be that which is furnished by Norzi and the old Bible codex of Dr. Curtiss, according to which the number of letters amounts to 305,607. But the question arises how the remaining, mutually contradictory, traditions have arisen? I am in the happy position of being able to solve this difficulty satisfactorily.

The statement, just alluded to, reads as follows:

1. וסכום האותיות של תורה שלשים רבוא וחמשת אלפים ושש מאות ושבע (D. H. p. 55, n. 1).

In Levita (*Mas. Ham.* ed. Ginsburg, p. 136), the statement takes the following form:

2. ומספר אותיות של כל התורה ששים רבוא וארבעים וחמשה.

Similarly, in Joseph del Medigo (*Nobl. Chochmah*, at the end):

2 a. ואמרו יש ס' רבוא אותיות לתורה כר'ת ישראל שהוא סוף התורה.

Norzi, *Minchath Shai*, at the end of Deuteronomy, has:

3. מנין אותיות של ספר תורה עשר אלפים ותת מאות וחמשה.

The identity of these three statements as regards the main quantity is strikingly evident. In Levita, or rather in the sources from which he drew his estimate, we must read שלשים רבוא instead of ששים רבוא. The words שלשים רבוא arose from the device ש"ר—a mistake arising from its resemblance to the ש"ר, which is found in Norzi. Thus all the estimates can be traced back to Norzi's. From ש"ר (= 304,000), ש"ר arises, which in the old Bible codex becomes שלשים רבוא; and in Levita ששים רבוא.

The next question that arises is how the estimate of Ben Asher and Manuel arose? From the digits 45, it may be concluded with certainty, that here too the same statement lies before us, but in a corrupt form. If the enumerations had been independent, the same number 45 would not have been obtained in both cases, while at the same time, a round difference of 100 (300:400) resulted in the

thousands. We may, with great probability, assume that Ben Asher, or his copyists, resolved  $\text{דש} (= \text{שד} = 304,000)$  into  $(\text{ד} =)$   $\text{ארבע מאות אלף}$  ( $\text{ש} = \text{ש} = \text{ותשע מאות}$ ). According to this hypothesis the original statement of the number would have been:  $\text{ש"ד מ"ה}$ , which = 304,045; this becomes in Levita  $\text{ששים רבוא וארבעים וחמשה}$ ; in Ben Asher  $\text{ארבע מאות אלף ותשע מאות} (= \text{דש} = \text{ש"ד})$   $\text{וארבעים}$  and  $\text{וחמשה}$ ; in Manuel, likewise  $\text{ארבע מאות אלף ותשע מאות}$  with the omission of  $\text{וארבעים}$  and  $\text{וחמשה}$ ; in the Curtiss codex  $\text{ששים רבוא}$ ; while in the words  $\text{וחמשת אלפים ושש מאות ושבע}$ , which are expressed by the letters  $\text{ה' ו' ז' ו' ה'}$ , lie Norzi's 805. Perhaps from  $\text{ח} (= 800)$   $\text{ה'}$  or  $\text{חמשת אלפים}$  has arisen, and has been referred to the thousands instead of to the hundreds, while after the resolution of  $\text{ש"ד}$  into  $\text{רבוא שלשים}$  for the thousands, no units remained.

These conjectures regarding the minor figures may no doubt be accepted or rejected; but every one, it is to be hoped, will assent to the main proposition, viz. the view that the different estimates are corrupt variations of a single statement. If this be the case, there can be no doubt that this statement contained 300,000 or 304,000 in its total. As a matter of fact the Pentateuch numbers about 300,000 letters, as our calculation showed. The only evidence that conflicts with this result is furnished by the estimates for single letters in Ginsburg's *Massorah*, the sum of which amounts to only 290,136.

It can, however, easily be proved that errors have crept into these detailed estimates. For the figures which are there given as specifying the number of times each letter of the alphabet occurs in the Pentateuch, are in many instances so low that they cannot possibly be right. Especially striking are:  $\text{ב} = 1,634$ ;  $\text{ג} = 2,105$ ;  $\text{ז} = 2,200$ ;  $\text{ד} = 1,843$ . In order to judge of these figures correctly, let us compare them with the figures which are given for the same letters in the case of the *whole Bible*<sup>1</sup>. The relation between the two is represented by the following ratios, in which the numbers for

<sup>1</sup> These latter numbers, as is well known, are furnished in the poem *אזל מכן בניי* which is ascribed to Sadyah. The poem has often been printed, cf. C. D. Ginsburg, *The Massoreth Ha-massoreth of Elias Levita*, London, 1867, p. 269, n. 1; (also Ginsburg, III, 299); more especially, J. Derenbourg, *Manuel du lecteur*, Paris, 1871, pp. 139 ff. and 234 ff, where, for the first time, an attempt is made to elucidate the unintelligible rhymes. The same numbers are given by Ginsburg in *The Massorah*, at the beginning of each single letter; they therefore emanate from this source.

the whole Scriptures are placed first: א 38,218 : 1,634; י 29,537 : 2,105; י 22,867 : 2,200; ב 13,580 : 1,843. Now the Pentateuch hardly forms more than a fourth part of the Bible; it is, therefore, quite inconceivable that it should contain only the twenty-fourth part of the total number of Beths, and in respect of the letters א, י, and ב, the proportion is similarly unfavourable in a greater or less degree. The fact must not be concealed that in the case of א a contrary proportion is found, viz. Bible 22,147, Torah 18,106. But if even the latter number is pitched too high, it nevertheless does not seem large enough to cover the deficiencies in the case of the other letters, and we may therefore, with great probability, add from 10,000 to 15,000 letters to the total number, whereby here too a result of 300,000 to 305,000 is reached.

This final result is, on the whole, confirmed also by a consideration of the number of *words* in the Pentateuch. This, according to *Dikduké Ha-teamim* (p. 55), and *Manuel du lecteur* (p. 150), as well as Ginsburg, III, 301 a, amounts to 79,856; according to Norzi (end of the Pentateuch), 79,976, or in round numbers, 80,000. Accordingly there would be, on an average, four letters to a word, while on a hypothesis of 400,000 letters, each word would contain at least five letters, and on a hypothesis of 600,000, the number of letters to a word would be  $7\frac{1}{2}$ . In view of the tri-literal basis of Hebrew, the two latter averages are in the highest degree improbable, for even supposing five letters to a word, it would be necessary to assume that the suffixes, matres lectionis, &c., entirely swamped the radical letters, which is not the case.

It is certainly a question how the words were counted; whether every particle was taken to be a separate word or whether it was regarded as belonging to the following word. E. g., Gen. i. 1 to ii. 3 has 469 words, of which 60 are connected with a Makkef, and among these several words, in reality independent, are found joined to the following word. There can hardly be a doubt that these are counted as separate words<sup>1</sup>. As the section referred to contains 1815 letters, we get a result of four rather than of five letters, as the average number for each word. It is not without purpose that we have selected this section as the basis of our calculation. For we find it here once more exemplified how uncritically Massoretic data are treated even by real savants. In Introduction, no. III to *Massoreth Ha-massoreth*, Levita says (Ginsburg, p. 135) that the weekly section Bereshith has 1,915 letters<sup>2</sup>—which number is de-

<sup>1</sup> Cf. on this point, *infra*, II.

<sup>2</sup> והאחיות בפרשה בראשית אלף והשע מאות וחמשה עשר סימן א"ץ ט"ו S. Baer (*Orient.* XII [1851], 202, note) perverts אחיות into חיבות and א"ץ ט"ו into



scribed already by Buxtorf as being too small (*Tiberias*, c. 18, p. 43). Now there can be no doubt that this estimate refers not to the Babylonian, but to the Palestinian weekly section Bereshith, which ends at chapter ii. 3, and contains 1,815 letters<sup>1</sup>. This fact escaped Buxtorf as well as Levita, as may be gathered from the context. There were figures in existence for both kinds of Sedarim. In Buxtorf's edition of the Bible there is a specification at the end of Genesis, according to which the number of letters amounts to 4,395. This number can only refer to the section Vayechi, as Buxtorf (*Tiberias*, 43) already correctly observes.

We see to what misconceptions and confusions the traditional numbers have given rise. Keeping this fact steadily before our eyes, we proceed to an examination of the statement specifying the total number of letters in the Holy Scriptures. In the S<sup>e</sup>adyah poem already referred to, the amount is given as 792,077<sup>2</sup>. As Derenbourg has already rightly observed (*Man.* p. 150, n. 10) this number is incompatible with the statement which fixes the number of letters in the Torah at 400,000, since the Pentateuch forms not much more than a fourth of the whole Bible. This discrepancy between the two figures is increased if 600,000 letters are allotted to the Torah alone, but neither is it removed, if, according to one demonstration, only an approximate number of 300,000 is adhered to, for after subtracting this sum, there would remain for the Prophets and Hagiographa only 492,077, whereas they are together almost thrice as large as the Pentateuch, and would, therefore, alone contain 792,077 letters.

*And this is in fact the case.* A glance at the various editions which contain the text without any addition, convinces us of the fact.

א"ץ יהיה. This sum is made to represent the number of words in בראשית; the number of letters, on the other hand, is given as 7,213, with the symbol א"ר אחד. It is a pity that Baer leaves his readers in obscurity as to the source of his information.

<sup>1</sup> Instead of א"ץ ט"ו we must read א"ף ט"ו. How easily ף may be confounded with ץ is seen from the fact that even Baer (*loc. cit.*) once puts ף for ץ.

<sup>2</sup> *Manuel*, p. 149: כלל מנין האותיות שבמקרא כולם הכפוזות והפשוטות שבע מאות. אלה ושנים חשנים אלה ושבעה ושבעים אות סימן ח"ש רצ"ב אלה רע"ז אות. This total sum results mainly from the separate figures for single letters which are also to be found in Ginsburg's *Massorah*. On I, 613, however, א"א אלה לב is a printer's error for נ"ב; further, in *Manuel*, p. 144, l. 4, in the פירוש the words המשה וארבעים are wanting. Anselm Worms סייג לתורה Frankfurt a. M., 1766, p. 15, has 815,280, but he counts one of the component numbers twice over. Cf. *Manuel*, p. 148, n. 16.

According to the method already employed with the Pentateuch, the calculation, based on the edition of the Bible Society, appears as follows :

Of the 605 pages, 150 are occupied by the Pentateuch, and 8 are quite blank ; there remain, therefore, for the Prophets and Hagiographa 447 pages = 894 columns. At the beginning and end of the books, at the chapters, &c., if my calculation is correct, about 2,180 lines = 58 columns of 38 lines each are missed. The Prophets and Hagiographa, therefore, occupy  $894 - 58 = 836$  columns. Many pages, however, have but 37 lines, occasionally only 36 ; further, unprinted places in the middle of the lines have not been taken into account. If we reckon the loss on these accounts at one line per column on an average—which is rather too little than too much—and subtract the 900 lines thus obtained, we get in round numbers 830 columns of 37 lines each as the contents of the Prophets and Hagiographa. Each such column, as has been already remarked above, contains an average of 1020 letters, and the total capacity of the Prophets and Hagiographa is therefore  $1,020 \times 830 = 846,600$ . This calculation is not, by reason of its nature, an exact one ; a difference of tens of thousands may be assumed, but not one reaching to hundreds of thousands. But if the *whole Bible* had approximately 800,000 letters, there would remain for the Prophets and Hagiographa only 500,000, which is entirely out of the question.

The calculation in the case of the *Biblia Hebraica sine Punctis* (Amsterd. 1701) appears much simpler and more exact. The whole of the books occupy a space of  $292\frac{1}{3}$  double pages = 585 pages, of which, between the three divisions of Scripture and elsewhere, 10 pages are left blank ; therefore  $585 - 10 = 575$  pages = 1,150 columns. Of these 1,150 columns, 298 belong to the Pentateuch, and 852 to Prophets and Hagiographa. Speaking in round numbers, the Pentateuch has been found to contain 300,000 letters ; consequently, the Prophets and Hagiographa would number 850,000. But in the case of the Prophets and Hagiographa, comparatively more unprinted spaces must be allowed for, since there are here 34 books, counting Samuel, Kings, Ezra, and Chronicles, as two each, and the Minor Prophets as 12 ; besides this, in most of the books the chapters are much smaller than in the Pentateuch, for which reason a larger quantity of blank space is taken up in dividing them. These two circumstances demand a deduction of about 40 to 45 columns, whereby a net result of approximately 800,000 is reached. Hence the proportion of the size of the Pentateuch to that of the Prophets and Hagiographa is expressed by the ratio 3 : 8, and not by 3 : 5.

We arrive, therefore, at the astonishing result that in the rhyme

referred to above, the total number of figures mentioned relates only to the Prophets and Hagiographa, exclusive of the Pentateuch. The whole Bible has, not 800,000, but 1,100,000 letters. The source of the error is probably the word **מקרא**. As is well known, this term was not only used to designate the whole Scriptures, but also to describe the Torah in contradistinction to the Prophets and Hagiographa<sup>1</sup>. The words **אותיות של מקרא**, then, have been understood to refer to the whole Bible instead of to the Prophets and Hagiographa. With whom the enumeration of the single letters of the alphabet originated, is unknown; it is equally uncertain who is the author of the rhyme<sup>2</sup>. Hence, it cannot be decided whether the versifier regarded the figures handed down to him as referring to the whole Bible or only to the Prophets and Hagiographa. Moreover, as regards the main problem this is a matter of indifference. In Manuel du lecteur the number is held to represent the whole 24 books<sup>3</sup>.

If the separate component numbers are placed in juxtaposition, we shall find our assertion, that the final sum, viz. 792,077, only gives the number of letters in the latter two divisions of the Bible, fully established. We append them here according to Ginsburg's *Massorah*, where the two sets of figures, those for the whole Bible and those for the Torah, are recorded, whereas the other sources at our disposal contain only the figures of the poem.

	<i>Bible.</i>	<i>Torah.</i>		<i>Bible.</i>	<i>Torah.</i>
א	42,377	27,055	ה	47,754	28,148
ב	38,218	1,634	ו	76,922	30,419
ג	29,537	2,105	ז	22,867	2,200
ד	32,530	7,034	ח	23,447	7,187

<sup>1</sup> On the expression **תורה ומקרא**, cf. my *Introduction to the Holy Scriptures*, p. 26; the word was used in the same sense even as late as Ben Asher (cf. *Massoretic Investigations*, p. 50). This nomenclature finds an analogy in the *Massorah*; e. g. on Exod. xii. 39: **כל אורייתא דסדר וכל קרי' מלא במ"ב**: צוה כל אורייתא דסדר וכל קרי' מלא במ"ב (Frensdorff, *Massoretic Dictionary*, p. 336, col. b). According to this, **התורה ושאר מקרא** = **התורה ומקרא**. That the specialized meaning lies in the omitted word **שאר**, and not in the meaning of **מקרא**, is proved by Ochla ve-Ochla, No. 60: **א"ב דוד בתלים ודוד בקריא**; the antitheses, therefore, are **תלים** and **מקרא**, which is only intelligible by the addition of **שאר** to **מקרא**.

<sup>2</sup> Cf. *Manuel*, p. 234 ff.

<sup>3</sup> P. 139: **וזה הוא מספר כל האותיות שמקרא שהוא ארבעה ועשרים ספרים**: The last four words give the impression of being an explanatory gloss of the compiler.

	<i>Bible.</i>	<i>Torah.</i>		<i>Bible.</i>	<i>Torah.</i>
א	11,052	1,812	ע	20,175	11,244
ב	66,420	31,522	פ	20,750	3,975
ג	37,272	8,616	ק	1,975	831
ד	10,981	3,362	צ	16,950	2,929
ה	41,517	21,612	ץ	4,872	1,033
ו	52,805	14,474	כ	22,972	4,701
ז	24,973	10,616	ך	22,147	18,106
ח	32,977	9,873	ש	32,148	15,592
ט	8,719	4,352	ת	36,140 <sup>1</sup>	17,960
ס	13,580	1,843			

We have already spoken of א, ב, ג, ד, and ה. The first four are credited with far too low figures, while ה exhibits far too high an

<sup>1</sup> In Ginsburg, *Massorah*, I, 33 b. ff., the poem is given with the same numbers, and yet 792,145 is given as the total. This figure has arisen from the erroneous סמן in the case of ה. It is rightly stated: מנן כל דלה: סמן נהם ל"ב. שבמקרא שנים ושלשים אלה וחמש מאות ושלשים. But then follows סמן נהם ל"ב instead of חקל. The difference of 68 raises the total amount from 77 to 145. Another error in the MS. or in the printing occurs with ג, where instead of לו we find אלה ע"י, which, however, has had no effect on the final result. The accuracy of these numbers was already called into question by R. Jair Bacharach (p. 272 a). He says: כאלו רוח: ה"ר בר ב"א אבל מה נעשה והחוש מכחיש פרטי המספרים. Prof. Kaufmann has drawn attention (*JEWISH QUARTERLY REVIEW*, VII, p. 291) to this fact, and has also referred to the divergent numbers communicated by Shapira in the *Athenaeum*, No. 2,626 (Feb. 23, 1878). As this note only came into my hands during the correction of the proof of this article, I have been unable to refer to this issue of the *Athenaeum*. Lazarus de Viterbo's words *Litterae omnes ipsius Genesis fuerunt 4,395* are passed over by Prof. Kaufmann without comment, as is also the statement that Genesis contains 1,915 (א"ץ מ"ו) letters, while, on the other hand, he rightly corrects *Versus omnes totius Pentateuci 5,045* into 5,845; Ghimel 29,637 he corrects into 29,537; and the number of verses in Genesis, previously given as 1,634, he corrects into 1,534. It is evident, however, that the admission that the numbers 4,395 and 1,915 are false—a fact which, as we observed above, Buxtorf and Baer perceived—is of the utmost importance for forming a judgment concerning L. de Viterbo, because the admission shows that, in spite of his differing as to the age of the vowels and accents, he followed Levita slavishly. Otherwise, he would not have adopted the figures in question, referring to the book of Genesis and the first section thereof respectively. Other proofs might be adduced to show the slavish dependence of Viterbo on Levita; these, however, do not come within the scope of this article. (On p. 291, for 60,045 read 600,045.)

estimate. If the figures of the first column referred to the whole Bible, then for Resh there would remain only 4,041 letters for the Prophets and Hagiographa, while the Pentateuch would have 18,106, which is manifestly impossible. Similarly, for  $\aleph$  there would remain 15,322, while the Pentateuch would have 27,055! Again, on this supposition, the Pentateuch would have more ה, ל, and ע's than the Prophets and Hagiographa. The sums of most of the other letters only correspond to the proportion between the sizes of the two divisions, Pentateuch and the Prophets and Hagiographa; if the single letter estimates for the Pentateuch are not deducted from the corresponding estimates for the מקרא, of which fact any one can convince himself by comparing the corresponding sets of figures. We do not know from what sources C. D. Ginsburg has collected, in his great work on the *Massorah*, the data in question, nor whether the systematic arrangement of them is also to be found in those sources. In the latter case, there is nothing to prevent the conception that the constant forms:  $\text{מנין כל} \dots$  and  $\text{שבמקרא} \dots$  indicate the numbers for the Pentateuch on the one hand, and the numbers for the Prophets together with those for the Hagiographa on the other: תורה = Pentateuch; מקרא = Prophets and Hagiographa. One feels in this instance also, how important it is in the case of the *Massorah*, to mention one's sources. The Massoretic works of Jacob ben Chayim, S. Frensdorff, and C. D. Ginsburg are invaluable aids, but the *Massorah* can as little be studied by means of them alone, as the Talmud by means of Maimun's *Mishna Torah*, as the Halacha by means of Joseph Karo's *Shulchan Aruch*, or as the literature of the Bible by means of Gesenius', or any one else's, lexicon. All information as to Massoretic sources must be made fully and entirely accessible to research, for a true understanding of it can only be achieved by means of a sifting of all the circumstances, including time, place, and authors.

The process of counting the letters was carried out, not only with the separate books, but also with single sections, at all events, those of the Pentateuch; and that, too, according to the Palestinian division as well as the Babylonian, as has been shown by the examples already cited. Unfortunately, with the exception of those already adduced, no record of these figures is anywhere to be found, so far as I know. And yet these figures, especially those of the Palestinian divisions, would be of importance for the text criticism of the Bible. A few examples are met with in the Talmud and Midrash. A well-known instance is the Baraitha, Sabbath 116a, according to which the small Parasha, Num. x. 35, 36, contains 85 letters. According to Targum Jonathan and Targum Jerushalmi

on Deut. xxxii. 3, the verses from xxxii. 1 to שם, in verse 3, contain 21 words, comprising 85 letters, whence Norzi infers that כשעירם must be written with only one *yod*. Deut. iv. 34, from לבוא to גוים, with the omission of the second גו, numbers 72 letters<sup>1</sup>. The decalogue from אנכי to אשר לרעה has 613+7 letters<sup>2</sup>; the blessing of Isaac, Gen. xxvii. 28, 29, has 100 letters<sup>3</sup>; the priestly blessing, Num. vi. 24-26 has 60 letters<sup>4</sup>. It is certain that the Masoretes counted the letters of every single verse, as many comparisons show<sup>5</sup>. From these data, which make no pretensions to completeness<sup>6</sup>, it is evident that the counting of the letters was a practice of very ancient origin. But it was probably not till much later that it was used for agadic interpretations.

I cannot close this chapter without calling attention to the related phenomenon in the Greek and Latin Bibles. The counting of the letters and stichs was in ancient times peculiar to these translations also. What data are still accessible in the MSS. I am, unfortunately, unable to state, since the literature in question is not at present at my disposal. I should merely like to suggest the question, whether the letter-counting of the Hebrew Bible did not give the students and copyists of the Septuagint the first impulse towards a similar proceeding? The Greek translators and the first people to use and disseminate this version were of course Jews, and the possibility that the Greek text of the Bible had its Massoretes as

<sup>1</sup> Judah II in Leviticus Rabbah, c. 23 at the beginning (ed. Wilna, 64 b at the bottom) and parallel places; Deut. Rabbah, c. 1 (196a), incorrectly מלוא עד סוף הדסק.

<sup>2</sup> Numbers Rabbah, c. 13 (p. 108a); c. 18 (152b).

<sup>3</sup> Ibid., c. 18 (152b); this result can only be arrived at artificially.

<sup>4</sup> Ibid.

<sup>5</sup> Cf. e.g. Frensdorff, *Massoretic Dictionary*, 377 b.

<sup>6</sup> Gen. xlix. 16, 17 has 70 letters (Numbers Rabbah, c. 14, fol. 121a); Judges xv. 19, from עין to בלח, 15 letters. It was here overlooked by the mediaeval authors; that c. 14 of Numbers Rabbah, in which most of the data in question occur, might be very late (cf. also, *ibid.*, c. 14, fol. 126a). The names of the tribes engraved on the breast-plate of the High Priest contain (according to Jerus. Sota, VII, 4, 21 d 29, and Bab. Sota, 36a) fifty letters. This statement is of interest in this connexion from the answer given by R. Jochanan to the objection (in the Jerusalem Talmud) that the letters in question only amount to 49. He answers: בנימן ורחל ורחם מלא. The names of each six tribes contain 25 letters. How this division was effected is a subject of controversy (cf. the commentators, *ad loc.*). The Aruch (s. v. מזה, Kohut, V, 64 b) cites ו"א של [Deut. x. 12] הדסק הזה, from which Norzi infers ו"א של, but in the ordinary editions the word is printed *defective*.

well as the Hebrew, is therefore not *a priori* to be rejected. According to Grause, the Grecian stichometry, and consequently also the counting of the letters which was connected with it, goes back to the habits of the booksellers of classical antiquity, who paid the copyists on a scale of this sort<sup>1</sup>. Contrariwise, the conjecture is also worth considering, whether among the Jews it was not originally the fixing of the transcribers' remuneration that gave rise to the system of recording the number of the letters of the Bible, of its single books and their parts and divisions. It is of course known that the copyists and revisers were paid out of the Temple treasury.

It will be interesting for our purpose to see the estimates of the number of letters contained in the Biblical books as mentioned by Berger (p. 323 f), and we quote a few of them for purposes of illustration and in confirmation of the assertions which we have put forward on this point. The Pentateuch has 523,063 letters, the Octateuch (= Pentateuch, Joshua, Judges, Ruth) 663,027, the whole Bible without the Apocrypha 2,105,515. Hence the Prophets and Hagiographa have 1,582,452. We see then from these specifications of the letters in the Vulgate, that the Pentateuch forms just a fourth of the whole Bible. Hence, in the Hebrew original also, the proportion cannot be other than about 1:4. If, therefore, the Pentateuch has approximately 300,000 letters, the Prophets and Hagiographa must have at least 800,000. We see, further, from the figures 523,063 for the Pentateuch, that in the Hebrew, where no vowels are written, 600,000 is an impossible number, for the Hebrew cannot have more letters than the Latin. The total number of letters in the Vulgate amounts to about 2,100,000. If in the Hebrew there were altogether only about 800,000, then we should have to assume that on account of the vowels the number of letters increased in Latin nearly threefold, which is a sheer impossibility. Thus, the results reached by us as regards the total of letters in the Pentateuch on the one hand, and in the Prophets and Hagiographa on the other, are corroborated in this direction also in the most gratifying manner.

## II.

### *The Number of Words in the Bible.*

We have, above, already touched upon the question whether the particles were regarded as separate words. This question is all the

<sup>1</sup> Cf. Samuel Berger, *Histoire de la Vulgate pendant les premiers siècles du moyen âge*, Paris, 1893, p. 316 ff.

more justified, because, not only are these little words often, sometimes consistently, marked as belonging to the following word by means of a Makkeph, but also frequently make their appearance deprived of their independence, in the paraphrases of the Hexapla<sup>1</sup>. In order to solve this problem, we have submitted the smallest of the sections, regarding which the number of words contained therein has been transmitted to us, to a re-count. For we find in Ginsburg, *Massorah*, II, p. 714 ff, the following data: (1) מִקֵּץ, 2,000 words; (2) קֶרַח, 1,462; (3) חֻקֵּת, 1,454; (4) בִּלְק, 1,450; (5) וְאַתְחֲנֶן, 1,870; (6) עֶקֶב, 1,746. Furthermore, Baer observes in the *Orient*, XII (1851), p. 202, note, that בְּרֵאשִׁית has 1,930 words: סִימָן א' י"ה י"ה. Whether this statement is old or whether it originates with Baer, I do not know. According to our computation the section Balak has 1,454 words<sup>2</sup>, consequently the particles are counted independently.

In our traditional literature only the following passages are known to me, in which the number of words is spoken of; and among these only two are of importance for our problem. In Sanhedrin, 10 b, some Amoraim of the second half of the third century point to Num. vi. 24-26 as containing 3 + 5 + 7 words. In Numbers Rabbah, Naso, sect. 13 (ed. Wilna, 108 b-109 a), it is stated that Ps. xix. 8-10 has five words to every half verse<sup>3</sup>, that in Deut. xxxiii. 18 the blessing of Moses consists of five words<sup>4</sup>; that, on the other hand, the blessing of Jacob in Gen. xlix. 13 consists of ten words<sup>5</sup>. In the last-named verse עַל-צִירֵן is connected with a Makkeph and is yet taken as two words<sup>6</sup>. Decisive, also, are the passages in Numbers Rabbah,

<sup>1</sup> Dillmann says in his article, "Text of the Old Testament" (*Protestant Real-Encyclopedia*<sup>2</sup>, II, 391), speaking of the Greek translations of the Bible, that they "differ indeed very frequently from the present text as regards the division of words, but still this is more the case with words which in sense belong together more closely (Cappell. II, 685-693, 839-842; Eichorn, §§ 73, 76)." Cf. the transliteration in Field, *Hexapla*, LXXIII,  $\theta\epsilon\sigma\sigma\mu\eta\acute{\omega}\theta$  = חֶשֶׁךְ מֵאוֹר.

<sup>2</sup> Possibly I have miscounted to the extent of 4, or the Massoretic statement אֵלֶּף תּוֹרָה should be emended so as to read תּוֹרָה אֵלֶּף.

<sup>3</sup> אֵלֶּיִם חֲמֵשֶׁה עֲדוּרִים חֲמֵשֶׁה כְּנֻשִׁים בְּנֵי שָׁנָה חֲמֵשֶׁה (Num. vii. 23) כְּנֹד ג' פְּסוּקִים שֶׁל תּוֹרָה שְׁבָעִים ו' סֻרֵּי מִשְׁנָה וְהֵן שְׁתֵּים פְּסָקָה וְכֹל פְּסָקָה וּפְסָקָה מִן חֲמֵשֶׁה חִיבּוֹת וְאִלּוּ הֵם תּוֹרָה ה' תְּמִימָה וְגו'.

<sup>4</sup> נָגַד ה' חִיבּוֹת שֶׁהֵם בְּפָסוֹק שְׁבִיבֵךְ מִשָּׁה שׁוֹתֵפוֹתָם.

<sup>5</sup> עֲשָׂרָה זֶה־בְּמֵלֶכֶת קִשְׁרָת כְּנֹד י' חִיבּוֹת שֵׁשׁ בְּבִרְכַּת זְבוּלֵן.

<sup>6</sup> In Sanhedrin, 22 a, R. Jehuda says, in the name of Rab: בְּאוֹרָה שִׁנָּה, on which Rashi observes that in 1 Kings i. 15, 13 words are to be found. This enumeration is only correct, if



ch. 14 (117 b), where it is stated that Gen. xlviii. 14 וַיֵּשֶׁת—xlviii. 20 has 130 words; *ibid.* 121 a, that Num. vi. 13–20 also contains 130 words; *ibid.*, that Num. vi. 8–12 contains 70 words; *ibid.* 118 a, that Gen. xlviii. 14 to וַהֲנַעֲרִי has ten words; and that in xlviii. 20, from וַיֵּשֶׁת to מִנְשָׁה, there are five words. According to a citation in the Aruch from the *Yelamdenu* the Shema contains 248 words<sup>1</sup>.

It is a question indeed how old the passages here cited are; nevertheless, this much is proved by them, that at the time when the enumeration of the words enjoyed a certain amount of attention, every word which in our texts appears separately, was regarded as independent, which was, indeed, from the outset to be expected. The outward separation of the words, as carried out in written Bible texts is very ancient, and springs from pre-Talmudic times, as can be proved from several considerations<sup>2</sup>. The variations found in the Greek translators are explained by the small size of their copies of the Bible, which offered opportunity for confusion in doubtful cases. Nevertheless, this antiquity of the division of words did not result in the removal of all doubt, for as late as the second century, differences of opinion prevailed as to the proper way of writing certain words<sup>3</sup>.

The total number of words in the Pentateuch, as has already been mentioned above, amounts, according to Ben Asher (*Dikd. Hat.*, p. 55 *supra*) to 79,856; according to Norzi in his concluding observation to the Pentateuch, to 79,876. It is evident that both transmit the same estimate: either נ"ו (= 56) has been corrupted to ע"ו (= 76)

וְהַמֶּלֶךְ is counted as one word. It is inconceivable that there is here a miscount, for Rashi quotes the whole verse. Hence אֵל would not be regarded as a separate word. It is, however, possible that Rashi took the name בַּרְשֵׁבַע as *one* word. This passage cannot under any circumstances furnish a proof for the period of Rab, because it remains doubtful whether Rab really took the number 13 from the number of words in the quoted verse, since 13 is well known to be a favourite and frequently-used number in our Tradition.

<sup>1</sup> Aruch, ed. Kohut, V, 64 b, Art. חיבת יש בקריה שמע שמשמרו: מאה. רמ"ה חיבת יש בקריה שמע שמשמרו: מאה. רמ"ה איברים שנאדם בלמנו פרש' כי אם שמר השמרון. Kohut remarks hereon that the citation cannot be verified.

<sup>2</sup> Cf. Dillmann, l. c.; Menachoth, 30 a: וּבֵן חִיבָה לְחִיבָה כְּמֹאל אֹתוֹ קִשְׁנָה.

<sup>3</sup> Cf. Pesachim, 117 a *supra*; Chullin, 65 a *supra*. Whether כְּרֹלֶעֶם כְּרֹלֶעֶם form one or two words, could have been decided by the number of words in the Pentateuch; nevertheless, we find no proposition with respect to counting the words (similar to that in Kiddushin, 30 a), because the contending Amoraim probably declared themselves incompetent to decide a question involving a point as to the division of the words.

or the opposite has taken place. It is noticeable that no numerical statement as to the words in the Prophets and Hagiographa has been recorded, whereas such has been the case as regards the letters of the alphabet. There exists, therefore, no mention of the middle word either of the Prophets and Hagiographa or of the whole Bible, as there does of the Torah. In the familiar passage, Kiddushin, 30 a, already quoted, there is no allusion to an enumeration of the words, only to a counting of the letters. For division by words was only an external feature; it was therefore not necessary that, like the quantity of letters, it should be fixed by a number. They rested satisfied with having done this with the most important book—the Torah. The counting of the letters is unquestionably older than the counting of the words. From the preceding, too, the fact is explained why in Tradition the letters are so often spoken of and the words so seldom.

LUDWIG BLAU.

BUDAPEST.

*(To be continued.)*